

# **The Effect of Education Level and Health Service Management on Stunting Risk through Nutritional Status**

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## **Abstract**

The purpose of this study was to determine and analyze the effect of education level and health service management on the risk of stunting through nutritional status, both direct and indirect impact through nutritional status. This type of research used in this research is associative research. The research site is located in the Work Area of the Pekkabata Health Center, Polewali Mandar Regency. The sample used was a census method where the entire population, as many as 80 children, were exposed to the risk of stunting. In conducting statistical testing, it uses path analysis. The results showed that education had a positive and significant effect on nutritional status in the working area of the Pekkabata Health Center, Polewali Mandar Regency. Health service management has a positive and significant impact on nutritional status in the Pekkabata Health Center's working area, Polewali Mandar Regency. The level of education has a positive and significant effect on the risk of stunting in the Work Area of the Pekkabata Health Center, Polewali Mandar Regency. Health service management has a positive and significant impact on the risk of stunting in the Pekkabata Public Health Center, Polewali Mandar Regency. Nutritional status affects the risk of stunting in the Pekkabata Health Center's working area, Polewali Mandar Regency. The level of education has a positive and significant effect on the risk of stunting through nutritional status in the Pekkabata Health Center's working area, Polewali Mandar Regency. Health service management has a positive and significant effect on the risk of stunting through nutritional status in the Pekkabata Health Center, Polewali Mandar Regency.

## **Keywords:**

Education Level, Health Service Management, Stunting Risk, Nutritional Status

## 1. Introduction

Healthy is a condition or condition of being well physically, mentally, and socially and not only free from disease or disability, WHO (2015) in Salma (2016), health is a condition where bio-psycho-social and spiritual do not experience problems. Or get sick. So, it can be concluded that health is judged not only from the physical but also many factors that influence it. For this reason, the Central Government, through the Regional Government and related agencies, continues to strive to improve and improve the quality of health, such as health facilities, facilities, and infrastructure, health personnel, and technology to support the acceleration and improvement of the quality of health services to the public.

Public Health Centre (PHC, in Indonesia called Puskesmas) are first-level health care facilities or at the forefront of providing services to the community. The Puskesmas carry out various work programs to help educate and provide sustainable health services. As Andi Hernaningsih (2014) stated, the concept of PHC needs to be renewed and improved to create quality, affordable, effective, and sustainable health services so that it can provide quality service. Based on the results of initial interviews with the community and health workers in the Madello Community Health Center, Barru Regency, the community PHBS has not been running as expected. Especially in terms of community behavior in consuming fruit every day and the availability of clean water and family toilet room (in Indonesia, called Jambang), especially people around the sea area, and mother's knowledge. Breastfeeding regarding the importance of breastmilk for children under five and community participation in the National Health Insurance program, in this case, Askes. The number of medical personnel not as expected, so that it impacts the fulfillment of public health services at PHC. Based on this, the authors suspect that factors affect PHBS. In Madello Village, the Madello PHC, Barru Regency is a factor in community education because education is a fundamental factor in life. Community behavior factors are very much influenced by tradition and belief, and the next factor is the quality of health services. This study aims to measure and analyze the effect of education and behavior and the quality of human resources on PHBS in the Madello Public Health Center, Barru Regency.

## 2. Literature Review

Education is a means or a place to increase knowledge, attitudes, and skills. According to Notoatmojo (2010), education is a persuasive effort for the community to want to take action or effort to maintain and improve their health. From the above definitions, it can be concluded that the purpose of education is to improve the quality of human resources both individually, families, groups and communities, and health workers. Education itself is formal, namely through education or school and non-formal education, namely training, courses, etc. Besides, someone with a high educational background tends to know the importance of a nutritious and balanced diet compared to individuals with a poor educational experience. The researcher's view is the concept of education that can maximize or increase knowledge of better nutritional status. In this study, researchers tried to place education as input and nutritional status as output. Various studies are discussing education about its relationship with the quality of human resources. Such as research by Sitti Fatima (2012) that there is an effect of health promotion interventions on the knowledge and attitudes and PHBS of elementary class students in Purworejo district, West Java Province. From the research above. It can be concluded that health education influences changes in the quality of human resources both from knowledge, attitudes, and behavior (Notoatmojo, 2010; Tirtarahardja, 2005).

Education is universal and continues uninterrupted from generation to generation anywhere in the world. Efforts to humanize humans through education are carried out in accordance with the view of life and social background of each society. Education is a human activity and effort to improve his personality by fostering his personal potential, namely spiritual (thought, intention, taste, creativity, and conscience). Education also means an institution that is responsible for determining the ideals (goals) of education, content, systems and educational organizations. These institutions include families, schools, and communities. Education, like the nature of its target, namely human beings, contains many aspects and is very complex in nature (Teng, M.B.A., Hasyim, M. 2020). As a process of cultural transformation, education is defined as an activity of cultural inheritance from one generation to another. As a process of personal formation, education is defined as a systematic and systemic activity directed at the formation of the personality of students. The process of personal formation includes two goals, namely the formation of persons for those who are not yet mature by those who are adults, and for those who are adults on their own efforts. The latter is called self forming. Both are natural and imperative.

The purpose of education contains a description of the values that are good, noble, appropriate, correct, and beautiful for life. Therefore, the purpose of education has two functions, namely, to provide direction to all educational activities

and is something that all educational activities want to achieve. As a component, educational goals occupy an important position among other educational components. It can be said that all components of all educational activities are carried out solely aimed at or aimed at achieving these goals. Thus, activities that are not relevant to these objectives are considered deviant, not functional, and even wrong, so they must be prevented from occurring.

In connection with such an important objective function, it is imperative for education to understand it. The purpose of education is abstract because it contains abstract values. Such goals are general, ideal, and have a very broad content, making it very difficult to implement in practice. Whereas education must be in the form of actions aimed at students in certain conditions, certain places, and at certain times by using certain tools. Its implementation is only possible if the objectives to be achieved are made clear (explicit), concrete, and have a limited scope of content. In other words, general objectives need to be detailed so that they become more specific and limited goals so that they can be easily realized in practice.

Health service management is a health chain system built or formed to provide health services promotive, preventive, curative, and rehabilitative. According to Terry in Monitoring, 2015, management plans, organizes, moves, and controls or evaluates. In this case, health service management is tasked with providing education, monitoring, and measuring pregnant women's nutritional status to minimize the risk of stunting.

This research is relevant to previous research conducted by Mahyuni (2008), which shows the effectiveness of PHBS behavior promotion through lectures and Role Play in junior high school adolescents in Banjar Regency, South Kalimantan Province. So it can be concluded that behavior affects the quality of human resources, in this case, youth cadres. So it can be supposed that when the management of health services is good and continuously carried out, it can control pregnant women's nutritional status and reduce the incidence of risk of stunting (Arisman, 2010; Supariasa, 2002).

In reducing the incidence of stunting risk, education and knowledge to the public, especially pregnant women. This knowledge can be obtained through health education in the form of health promotion. According to Achmad (2013), one of the community's requirements to participate in an activity is that there are benefits or potential benefits obtained. The relationship between education and the incidence of stunting risk is that someone who has high education will have good knowledge to choose and understand information. The risk of stunting is a frightening specter for pregnant women who have poor nutritional status. Therefore, the researcher creates a model or concept by placing education as an input and stunting risk as an output. With the assumption or belief that education can affect the risk of stunting. This research is in line with the study conducted by Hamid (2013), which shows that the level of education affects community participation in participating in PHBS. So it can be concluded that the better or higher a person's education, the understanding of stunting risk incidence will also increase. This is due to the level of experience and knowledge of people with a better education than those with less well-educated backgrounds (Tirtaradja, 2005;)

One way to improve maximum and sustainable service to the community is with a sound health service management system that is well structured and programmed. The risk of stunting is a severe health problem. Therefore, the management of health services to tackle stunting risk is very serious about being carried out by the government and related agencies. In this study, researchers tried to create a concept by placing health service management as an input and stunting risk as an output. Researchers believe that a reasonable health service management system can reduce and reduce the risk of stunting in pregnant women if done and monitored early.

This study is relevant to Syafrizal's (2002) research, showing that there is an effect of counseling on improving family hygiene and healthy living behavior in Bungo district, Jambi. From the above research, it can be concluded that good, structured, and sustainable health service management can impact public knowledge, especially pregnant women, to reduce the impact and risk of stunting. So, the better the management of health services, the lower the risk of stunting and vice versa (Syafrizal, 2002; Arisman, 2010; Supariasa, 2002; Trihono et al., 2015;)

One of the indicators for measuring a person's health status is by measuring nutritional status. Good dietary intake will increase endurance and better health status. According to Supariasa (2002), status assessment assesses a person's health condition, including anthropometric, biochemical, and examination through surveys. Therefore, an excellent nutritional status will reduce the incidence of risk of stunting. Researchers create a model or concept by placing nutritional status as input and threat of stunting as an output. Researchers believe that nutritional status affects the risk of stunting.

Research that has relevance or similarity to this research is conducted by Darubekti, which shows that knowledge and attitudes influence the lack of public health behavior in Talang Pauh village. Health behavior here can be interpreted as a healthy lifestyle and nutritional status. An excellent dietary rate will reduce the risk of stunting and vice versa if a healthy lifestyle and malnutrition status will also increase the risk of stunting (Supariasa, 2002; Trihono et al., 2015, Supariasa, 2002)

One of the goals of education is to increase knowledge through both formal and non-formal education. With education, a person's ability can also increase or be different from understanding people who have less education. Knowledge of good nutritional status can indirectly reduce the risk of stunting. According to Nototomojo (2010), education is an effort to change people's understanding from not knowing and willing and maintaining their health.

Based on this understanding, the researcher created a concept by placing education as an independent variable that affects the risk of stunting as the dependent or affected variable and nutritional status as an intermediate or intervening variable. Researchers believe that education involves the risk of checking through nutritional status (Notoatmojo, 2010; Hasbullah, 2003; Sadulloh, 2006)

### **2.1. Health Service Management of Stunting Risk Incidence through Nutritional Status**

One indicator of health service management's success is the increase in public health status and a decrease in the community's morbidity rate. Therefore, good and planned health services management will have an impact on the success of public health service programs. Nutritional status plays a vital role in improving public health and a step or effort to increase endurance and protection from various health problems, especially those caused by dietary issues such as the risk of stunting. According to Sandra Fikawati et al., preparing nutritious and balanced meals for daily meals can improve children's nutritional status.

Based on this definition, the researcher believes that good service management can improve children's nutritional status and indirectly reduce the risk of stunting. Therefore, the researcher created a concept by placing health service management as an independent or influential variable and the incidence of stunting risk as to the dependent variable as the affected variable, and nutritional status as an intervening variable or intermediary (Siswoyo, 2007).

## **3. Methods**

This study uses a quantitative approach with the SPSS version 25 analysis tool. This research was conducted with the research subjects were 80 people in the working area of the Pekkabata Public Health Center, Polman Regency. The data collection technique used a questionnaire. The sample was taken with a total sampling of 80 people. Each incoming questionnaire was coded and numbered, then the data was edited and tabulated into excel, and then the data was analyzed with SSS version 25. The results showed that the people who filled out the questionnaire were 80 people, meaning that all respondents represented by one person per household filled out the questionnaire following the research target is as many as 80 respondents

### **3.1. Variable Measurement**

Measurement of variables using a Likert scale, namely 1-5. The statements in the questionnaire are built from some of the concepts and results of previous research. Education that is meant in this research is formal education through school. Education Indicators of the SISDIKNAS Law NO. 20, 2008), namely 1) Basic Education, 2) Secondary Education, and 3) Higher Education. Health Service Management, referred to in this research, is the management and ways of providing health services to the community. Health Service Management Indicators, namely 1) Planning, 2) Organizing, 3) Implementation, and 4) Evaluation. In this study, the nutritional status is the condition or nutritional status of the mother during the pregnancy process. Healthy Status Indicators, namely 1) source of energy substances, 2) sources of building senses, and 3) sources of regulatory implications.

## **4. Results and Discussion**

This study uses Path Analysis using SPSS version 25. As previously stated, this study produced two conceptual models that differ from the variable education and health care management in influencing the risk of stunting through Nutritional Status. The first conceptual model is the model of direct influence of Education and Management of health services with the Risk of Stunting to Nutritional Status, both models of indirect influence of Education and Health Care Management on Nutritional Status Stunting Risk.

#### 4.1 Substructure Equation Test 1

The analysis test results on the equation of substructure 1 in this study can be seen from the following table.

**Table 1.** Substructure Test Result 1

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	That's it, that's
		B	Std. Error	Beta		
1	(Constant)	2,736	1,128		2,426	,018
	Education Level (X1)	,582	,084	,524	4,558	,000
	Health Care Management (X2)	,501	,070	,499	4,292	,000
a. Dependent Variable: Status Gizi (Y1)						

Source: Processed Primary Data, 2019.

Regression Equation as follows:  $Y1 = 0,524X1 + 0,499X2$

#### 4.2 Substructure Equation Test 2

The analysis test results on the equation of substructure 1 in this study can be seen from the following table.

**Table 2.** Substructure Test Result 2

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	That's it, that's
		B	Std. Error	Beta		
1	(Constant)	1,955	,878		2,227	,029
	Education Level (X1)	,157	,071	,190	2,221	,069
	Health Care Management (X2)	,192	,059	,278	3,290	,072
	Nutritional Status (Y1)	,441	,086	,280	5,154	,060
a. Dependent Variable: Stunting (Y2)						

Source: Processed Primary Data, 2019.

The regression equation of the output is:  $Y2 = 0,190X1 + 0,278X2 + 0,580Y1$

**Table 3.** Indirect Influence Test Results

Path Coefficient	Standardized Coefficient	Std. Error
X1 Y1→	0,524	0,084
Y1 Y2→	0,580	0,086
X1 Y1 Y2→→	$0,524 \times 0,280 = 0,146$	-
X2 Y1→	0,499	0,070
X2 Y1 Y2→→	$0,499 \times 0,280 = 0,139$	-

Source: Primary Data after processing, 2019.

### 5. Conclusion

This study's conclusion is Education and Health Service Management jointly positively affect the Nutritional Status through stunting risk either directly or indirectly in the Region Pukesmas Pekkabata Polewali Mandar Regency.

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